

**HIFLOWS-UK
DATA UPDATE TO 30 SEPTEMBER 2008
DATA VERSION 3.02, RELEASE DATE NOVEMBER 2009
NOTE ON CHANGES FROM VERSION 2.2.1**

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1. Details of changes to station list

1.1 Stations added or removed

The following stations (both operated by CEH Wallingford) have been added:

CEH ref	Watercourse	Location
54091	Severn	Hafren Flume
54092	Severn	Hore Flume

No stations have been removed.

1.2 Changes to CEH reference number

HiFlows-UK v2.2.1 CEH Reference	Station Name	EA Region	HiFlows-UK v3.02 CEH Reference	Comment
33020	Brampton	Anglian	33080	New station Brampton New Weir replaces previous station
33030	Clipstone	Anglian	33090	New station Clipstone New Weir replaces previous station
54112	Warwick	Midlands	54114	Correction
64002	Dysynni	Welsh	64012	Also change of name from Pont Y Garth
73803	Bowston	North West	73016	73803 is Winster @ Lobby Bridge. New number agreed with CEH.

In addition, Manchester Racecourse, 69025, has been given a separate webpage to Adelphi Weir, 69002. The annual maxima data from the two stations have been combined and exported to the 69025.am file (from 69002).

In some of the above cases, the CEH reference number has changed because the reference number on HiFlows-UK applies to the station which is currently updated, rather than to the original station.

1.3 Stations with combined records

Superseded Station	New (open) station
27008 Leckby	27071 Crakehill
54906 Kidderminster Gilt Edge	54006 Kidderminster Callows Lane
76007 Warwick Bridge	76810 Great Corby
73003 Burneside	73016 Bowston

HiFlows-UK version 2.2.1 presented a combined record for 54907 Broom Old & 54007 Broom New. HiFlows-UK version 3.02 presents separate files because the stations have different Indicative suitabilities.

2. Catchment Descriptors

2.1 Catchment descriptors shown on the Station home pages

In version HiFlows-UK 2.2.1, the catchment descriptors shown on the Station Home pages were as the FEH CD-ROM version 1.0, 1999. HiFlows-UK version 3.02 has updated the catchment descriptors on the Station Home pages to FEH version 2.0, 2006.

2.2 FEH catchment descriptors, version 3

CEH have recently produced new .cd3 files, which include two new catchment descriptors:

FPEXT Floodplain extent
CENTROID Centroid of catchment

CEH originally only had these parameters about 600 rural catchments, and not for urban catchments. These urban catchments have now been added, and HiFlows-UK v3.02 presents .cd3 files for all catchments with .cd2 files.

3.0 Indicative suitability

3.1 Indicative Suitabilities – Changes from HiFlows-UK v2.2.1

Station			HiFlows-UK v2.2.1		HiFlows-UK v3.02	
CEH Number	Station Name	EA Region	Suitable for QMED	Suitable for Pooling	Suitable for QMED	Suitable for Pooling
33017	St Ives	Anglian	YES	YES	NO	NO
33090	Clipstone	Anglian	NO	NO	YES	NO
33012	Hail Weston (Meagre Farm)	Anglian	YES	YES	YES	NO
37033	Eastwood	Anglian	YES	YES	YES	NO
54017	Wedderburn Bridge	Midlands	NO	NO	YES	NO
28002	Hamstall Ridware	Midlands	YES	YES	YES	NO
54006	Kidderminster Callows Lane	Midlands	YES	YES	YES	NO
21806	Heaton Mill	North East	NO	NO	YES	YES
22801	Stamfordham	North East	NO	NO	YES	NO
23033	Otterburn Ultrasonic	North East	NO	NO	YES	NO
27056	Ings Bridge	North East	YES	NO	NO	NO
27062	Skip Bridge	North East	NO	NO	YES	NO
27081	Farrer Lane	North East	YES	NO	YES	YES
72003	Wray	North West	YES	NO	NO	NO
77001	Netherby	North West	NO	NO	YES	NO
69015	Compstall	North West	YES	NO	YES	YES
74007	Crople How	North West	YES	YES	YES	NO
17001	Headswood	SEPA	YES	YES	YES	NO
47804	Moors Mill	South West	YES	NO	NO	NO
44006	Sydling St Nicholas	South West	YES	NO	YES	YES
44801	Hooke	South West	YES	YES	YES	NO
45008	Fenny Bridges	South West	YES	NO	YES	YES
47011	Carnwood	South West	YES	NO	YES	YES
50007	Taw Bridge	South West	YES	YES	YES	NO
50011	Jacobstowe	South West	YES	YES	YES	NO
42006	Mislingford	Southern	YES	YES	YES	NO
39003	S.Wimbledon (Connolly's Mill)	Thames	NO	NO	YES	YES
39021	Enslow	Thames	NO	NO	YES	YES

Station			HiFlows-UK v2.2.1		HiFlows-UK v3.02	
CEH Number	Station Name	EA Region	Suitable for QMED	Suitable for Pooling	Suitable for QMED	Suitable for Pooling
38013	Luton Hoo	Thames	YES	NO	NO	NO
39005	Wimbledon Common	Thames	YES	NO	YES	YES
60012	Ddol Las	Welsh	NO	NO	YES	NO
56004	Llandetty	Welsh	YES	NO	YES	YES
58002	Resolven	Welsh	YES	NO	YES	YES
64001	Dyfi Bridge	Welsh	YES	YES	YES	NO
64012	Dysynni	Welsh	YES	YES	YES	NO

3.2 Stations where suitabilities change during the period of record

The table below gives a detailed summary on changes to Suitabilities part way through record. The periods indicated are listed as Rejected years in .am and .pt files, and are shown as red in the images on AMAX and POT webpages. Stations with significant rejected periods because of other reasons are listed in section 3.3.

CEH REF	Station name	Region	Suitability for QMED	Suitability for pooling	Rejected period	
					Startdate	End date
32002	Fotheringhay	Anglian	Yes - Data 1938-2000 suitable for QMED estimation	No - Both ratings unreliable at high flows. Flume bypassed at high flows resulting in considerable flood plain flow. New weir has not been gauged at high flows but is likely to be similarly bypassed.	01/10/1938	31/03/2000
33002	Bedford	Anglian	Yes - From Water Year 1959 - gauged above QMED	No - Insufficient high flow gaugings	01/01/1933	30/09/1959
33007	Marham	Anglian	Yes - Q modular limit 6m ³ /s greater than Q MED	Yes - Suitability4Pooling: "Only for data AFTER 5/4/82 when using Motts non modular rating."	01/10/1953	05/04/1982
33090	Clipstone	Anglian	Yes - From Oct 2006	No - Reliability of higher stage rating unknown	01/01/1957	30/09/2006
39003	S.Wimbledon (Connolly's Mill)	Thames	Yes - From 1964	Yes - Possibly - though complex bypassing and no high flow gaugings	01/01/1939	30/09/1964
39004	Beddington Park	Thames	From 01 Oct 1991	Yes - From 01/10/1991.	01/10/1936	30/09/1991
39005	Wimbledon Common	Thames	Yes - Gauged to above QMED	Yes - From 1961 - Just meets criteria, although the very largest (out of bank) events are uncertain	01/03/1935	30/09/1961
42001	North Fareham	Southern	Yes - From 1991	Yes - From 1991. Rating confirmed at high flows.	01/09/1951	30/09/1991
42003	Brockenhurst	Southern	Yes - From 1996	No - No high flow gaugings, extensive out-of-bank flows	01/10/1960	30/09/1996

54006	Kidderminster Callows Lane	Midlands	Yes - From July 1990 (ultrasonic record)	No - See Station description	01/11/1980	30/06/1990
54022	Plynlimon	Midlands	Yes - from Oct 1971	Yes - from Oct 1971	01/11/1951	30/09/1971
55016	Disserth	Welsh	Yes - from Oct 1972 - gauged to around QMED	No - rating does not fit highest gaugings	29/07/1968	30/09/1972
58002	Resolven	Welsh	Yes - from July 1978, Bankful (rating upper limit) > QMED	Yes - (just) from July 1978. Some bypassing upstream at extreme events.	06/11/1959	30/06/1978
58009	Keepers Lodge	Welsh	Yes - From June 1995 as gaugings > QMED. Not for earlier period (with different rating) as QMED estimate is much larger.	Many high records above upper limit and highest gauging not within 60% of Q(8)	01/11/1971	31/05/1995
59001	Ynystanglws	Welsh	Yes - Rating upper limit > QMED	Yes - from 1973 when embankments built	18/10/1956	30/09/1973
61001	Prendergast Mill	Welsh	Yes - from Oct 1971 - gauged above QMED	Although high records within rating limit, need to determine out of bank S-D relationship before good for pooling	28/07/1961	30/09/1971
68003	Rudheath	North West	Yes - From February 1979 only.	No - Overbank flows ungauged, and possible variable backwater.	17/05/1949	30/09/1979
69030	Causey Bridges	North West	Yes - From water year 1983/84. Gaugings extend to around QMED, though show scatter	Much scatter and few gaugings. Highest flows are out of bank, possibly with considerable bypassing.	01/09/1953	31/07/1983
69032	Kirkby	North West	Yes - from 1977 - Gauged above QMED	Yes - from 1977 - OK for all except out-of-bank events.	17/05/1963	06/09/1977
82001	Robstone	SEPA	Yes - Flows prior to June 1982 are not recommended for QMED estimation	Yes - Flows prior to June 1982 are not recommended for pooling	05/09/1963	31/05/1982
84006	Bridgend	SEPA	Yes - only until 01/10/1979 due to scatter in spot gaugings	Yes - only until 01/10/1979 due to scatter in spot gaugings	01/10/1979	30/09/2008

3.3 Other Stations with Rejected Periods

Reasons other than change in Indicative suitabilities

The Rejected periods are marked as Rejected in .pt and .am files and are shown in red in the images on AMAX and POT web pages. Stations with significant rejected periods because of change in suitabilities are listed in Table 3.2.

CEH ref	Station Name	EA Region	Rejected Period		Reason
			Start Date	End Date	
23003	Reaverhill	North East	01/10/1980	30/09/2008	Data presented in .pt and .am files are pre-reservoir only.
23007	Rowlands Gill	North East	01/01/1963	30/09/1964	Data presented in .pt and .am files are post-reservoir only.
28058	Ashbourne	Midlands	01/10/1992	30/09/2008	No data from water year 1992/1993 in AM and PT files
48011	Restormel	South West	30/09/1983	30/09/2008	Data presented in .pt and .am files are pre-reservoir only.
67019	Weir X	Welsh	01/10/1964	30/09/2008	Data presented in .pt and .am files are pre-reservoir only.
203010	Maydown Bridge	Rivers Agency (NI)	23/10/1970	30/09/1990	Post-arterial drainage scheme data presented
203011	Dromona (R16)	Rivers Agency (NI)	25/05/1970	30/09/1990	Post-arterial drainage scheme data presented
203022	Derrymeen Bridge	Rivers Agency (NI)	26/05/1971	30/09/1990	Post-arterial drainage scheme data presented
203043	Shanmoy	Rivers Agency (NI)	09/02/1981	30/09/1986	Pre-weir record intermittent.
206001	Mountmill Bridge	Rivers Agency (NI)	26/10/1971	30/09/1975	Post-arterial drainage scheme data presented

Stations with partial record due to damage of station

The two stations below were impacted by damage to the station (the periods are not shown in the .am and .pt files, and are not shown on the webpages), viz:

65004 Bontnewydd (Wales) from water year 2004
66006 Pont y Gwyddel (Wales) from water year 2006

4. Peaks-over-threshold data

4.1 List of stations for which Peaks-over-thresholds (.pt files) are not presented

CEH Number	Station Name	EA Region	Suitable for QMED	Suitable for Pooling
26003	Foston Mill	North East	YES	YES
26009	Snakeholme Lock	North East	YES	NO
26010	Snakeholme Lock	North East	YES	NO
26802	Kirby Grindalythe	North East	YES	YES
26803	Driffield	North East	NO	NO
27038	Gatehouses	North East	YES	NO
27073	Snainton Ings	North East	YES	YES
29005	Rase Bishopbridge	Anglian	NO	NO
30005	Saltersford	Anglian	YES	NO
30006	Leasingham Mill	Anglian	YES	YES
30013	Heighington	Anglian	YES	YES
30015	Stock Rochford	Anglian	NO	NO
31004	Tallington Total	Anglian	YES	YES
33005	Thornborough	Anglian	YES	YES
33007	Marham	Anglian	YES	YES

CEH Number	Station Name	EA Region	Suitable for QMED	Suitable for Pooling
33012	Hail Weston (Meagre Farm)	Anglian	YES	NO
33032	Heacham	Anglian	YES	YES
33049	Buckenham Tofts	Anglian	YES	NO
33052	Swaffham Bulbeck	Anglian	YES	NO
33054	Castle Rising	Anglian	YES	YES
34012	Burnham	Anglian	YES	YES
38011	Welwyn (Fulling Mill)	Thames	YES	NO
39010	Denham	Thames	YES	NO
39021	Enslow	Thames	YES	YES
39033	Bagnor	Thames	YES	YES
39034	Cassington	Thames	YES	YES
39037	Marlborough	Thames	YES	NO
39089	Hemel Hempstead (Bury Mill)	Thames	YES	YES
39095	Hither Green (Manor Ho Gardens)	Thames	YES	YES
40033	Crabble Mill	Southern	YES	YES
41015	Westbourne	Southern	YES	YES
41023	Graylingwell	Southern	YES	YES
42005	Broughton	Southern	YES	NO
42006	Misingford	Southern	YES	NO
42007	Drove Total	Southern	YES	YES
42008	Sewards Bridge	Southern	YES	YES
42009	Borough Bridge	Southern	YES	YES
42010	Allbrook + Highbridge	Southern	YES	YES
42012	Fullerton Total	Southern	YES	YES
42017	Havant	Southern	YES	YES
43003	East Mills Combined	South West	YES	YES
43004	Laverstock	South West	YES	NO
43005	Amesbury	South West	YES	YES
43008	South Newton	South West	YES	YES
43010	Loverley Mill	South West	YES	YES
43012	Norton Bavant	South West	YES	YES
43018	Walford Mill	South West	YES	YES
44002	Baggs Mill	South West	YES	NO
44004	Dorchester Combined	South West	YES	NO
44006	Sydling St Nicholas	South West	YES	YES
44008	Winterbourne Steepleton	South West	YES	YES
44009	Broadwey	South West	YES	YES
44809	Little Puddle	South West	YES	YES
44810	Briantspuddle	South West	YES	NO
54027	Ebley Mill	Midlands	YES	YES
55035	Iago Flume	Welsh	NO	NO
67020	Chester Weir	Welsh	YES	NO
85001	Linnbrane	SEPA	YES	YES
205999	Control	Rivers Agency (NI)	YES	NO
206006	Recorder 1895	Rivers Agency (NI)	YES	YES

4.2 Differences in .pt files

Stations for which .pt files were not presented in version 2.2.1, but are presented in version 3.02

38001 Lee @ Feildes Weir
38018 Lee @ Howe Green (Water Hall)
39014 Ver @ Colney Street (Hansteads)
39015 Whitewater @ Lodge Farm
39019 Lambourn @ Shaw
39020 Coln @ Bibury
39042 Leach @ Lechdale
39088 Chess @ Rickmansworth

Stations for which .pt files were presented in version 2.2.1, but are not presented in version 3.02

30005 Witham @ Saltersford
33012 Kym @ Meagre Farm (Hail Weston)
43005 Avon @ Amesbury
44810 Piddle @ Brantspuddle

The AMAX series were reviewed for three stations in Thames region. The .pt files are not presented because the POT series have not yet been reviewed, and are different from the AMAX series:

39021 Cherwell @ Enslow
39034 Evenlode @ Cassington
39095 Quaggy @ Hither Green

4.3 Stations where the Threshold for POT data has changed

CEH ref	Station Name	EA Region	HiFlows UK v2.2.1 Threshold (m ³ /s)	HiFlows-UK v3.02 Threshold (m ³ /s)
27062	Skip Bridge	North East	120.49	60.0
39049	Colindale (Colindeep Lane)	Thames	0.11	2.8
41020	Clappers Bridge	Southern	9.09	5.0
44810	Briantspuddle	South West	4.76	1.63
60005	Llandovery	Welsh	42.33	20.0

4.4 Stations where the Time to Rise values changed

“Three times the Time to Rise” is one of the criteria used in POT extraction. New Time to Rise values were derived by analysis of events for catchments in the North West region which are significantly affected by lakes and reservoirs, as below:

CEH ref	Station Name	EA Region	Time to Rise (hours) in HiFlows UK v2.2.1	Time to Rise (hours) in HiFlows-UK v3.02
73014	Jeffy Knotts	North West	3.94	12.0
75004	Southwaite Bridge	North West	5.55	15.6
75005	Portinscale	North West	6.21	20.3
73002	Low Nibthwaite	North West	4.55	32.3
73006	Eel House Bridge	North West	4.25	29.2
73010	Newby Bridge Fms	North West	6.88	37.8
74003	Bleach Green Weir	North West	3.47	13.7
75001	Thirlmere	North West	16.40	16.4
75002	Camerton	North West	10.25	17.3
75003	Ouse Bridge	North West	7.628	46.4
76001	Burnbanks	North West	3.641	18.1
76015	Pooley Bridge U/S	North West	5.027	32.1

5. Changes to data

5.1 Stations where WISKI data have replaced part of the previous HiFlows-UK dataset

CEH ref	Station Name	EA Region	Existing HiFlows record	Apply WISKI data from	Comment
26009	Snakeholme Lock (West Beck)	North East	23/12/1988 – 23/09/2006	30/11/1988	
26010	Snakeholme Lock (Driffield Canal)	North East	19/10/1988 – 28/09/2000	01/10/2000	
27041	Buttercrambe	North East	30/09/1973 – 03/09/2006	01/10/2003	
27062	Skip Bridge	North East	03/12/1999 – 03/09/2009	03/12/1999	
27206	Briggswath	North East	27/10/1992 – 02/06/2006	01/10/2003	
21806	Heaton Mill	North East	31/07/2002 – 19/08/2006	06/12/2001	
22801	Stamfordham	North East	21/09/1999 – 01/04/2006	19/08/1999	
27079	Methley	North East	20/08/1988 – 14/09/2006	01/10/2001	
27201	Mytholmroyd	North East	14/08/1989 – 02/09/2006	08/10/2001	
28011	Matlock	Midlands	10/02/1958 – 14/09/2006	01/10/1999	Earlier record needs review
29009	Toft Newton	Anglian	07/10/1974 – 24/05/2006	04/04/2000	
31002	Kates Bridge + King St	Anglian	19/01/1959 – 23/05/2006	25/12/1999	
31004	Tallington Total	Anglian	12/07/1968 – 27/05/2006	12/12/1999	
32007	Saint Andrews Total	Anglian	17/11/1940 – 18/08/2006	11/12/1999	
33029	Whitebridge	Anglian	10/08/1965 – 26/09/2006	01/02/2004	
33090	Clipstone	Anglian	02/10/1966 – 01/04/1980	21/10/2002	Only exported from 01/10/2006
34010	Billingford	Anglian	28/06/1968 – 25/08/2006	29/05/2000.	
35004	Beversham	Anglian	04/09/1965 – 15/02/2006	05/05/2004	
29004	Bishopbridge (Adjusted Flow)	Anglian	14/07/1968 – 01/01/2006	01/01/2004	
39001	Kingston	Thames	03/01/1883 – 26/05/2006	01/10/2003	
39031	Welford	Thames	02/05/1963 – 15/10/1983	March 2003	When station re-opened. Closed 16/10/1983.
43003	East Mill Combined	South West	26/02/1966 – 26/05/2006	01/10/1999	
44001	East Stoke Combined	South West	01/01/1992 – 25/05/2006	03/12/1992	
50007	Taw Bridge	South West	29/11/1973 – 25/05/2006	01/10/1998	
42017	Havant	Southern	10/02/1954 – 30/09/2006	22/10/1999	
55022	Mitchel Troy	Welsh	14/01/1970 – 22/05/2006	22/07/2002	
60005	Llandovery	Welsh	13/05/1968 – 26/05/2006	16/11/1995	Start of new ultrasonic
62002	Llanfair	Welsh	27/01/1971 – 27/05/2006	15/04/2002	
69041	Broomstairs	North West	01/07/1968 – 14/09/2006	11/02/1995	

6. Changes to ratings

Ratings have changed at the following stations:

CEH Ref	Station Name	EA Region
21806	Heaton Mill	North East
22801	Stamfordham	North East
23033	Otterburn Ultrasonic	North East
27025	Woodhouse Mill	North East
28011	Matlock	Midlands
28012	Yoxall	Midlands
28019	Drakelow	Midlands
28022	North Muskham	Midlands
28026	Polesworth	Midlands
28031	Ilam	Midlands
28032	Church Warsop	Midlands
28060	Lowdham	Midlands
28080	Lea Marston Lakes	Midlands
28085	Derby Saint Marys	Midlands
30006	Leasingham Mill	Anglian
34004	Costessey Mill	Anglian
35010	Bramford	Anglian
37013	Sandon Bridge	Anglian
39004	Beddington Park	Thames
39095	Hither Green (Manor Ho Gardens)	Thames
41020	Clappers Bridge	Southern
41028	Chess Bridge	Southern
45005	Dotton	South West
45008	Fenny Bridges	South West
45816	Upton	South West
45819	Collard Bridge	South West
46008	Loddiswell	South West
47011	Carnwood	South West
47014	Horrabridge	South West
50007	Taw Bridge	South West
50008	Gribbleford Bridge	South West
54001	Bewdley Us	Midlands
54012	Walcot	Midlands
54014	Abermule	Midlands
54017	Wedderburn Bridge	Midlands
54027	Ebley Mill	Midlands
54028	Llanymynech	Midlands
54057	Haw Bridge	Midlands
54091	Hafren Flume	Midlands
54092	Hore Flume	Midlands
54106	Shipston	Midlands
54114	Warwick	Midlands
55016	Disserth	Welsh
56004	Llandetty	Welsh

CEH Ref	Station Name	EA Region
58002	Resolven	Welsh
58007	Coytrahen	Welsh
59001	Ynystanglws	Welsh
60001	Ty Castell	Welsh
60006	Glangwili	Welsh
60012	Ddol Las	Welsh
63001	Pont Llolwyn	Welsh
64012	Dysynni	Welsh
66001	Pont y Cambwll	Welsh
66011	Cwmlanerch	Welsh
68020	Bridge Trafford	North West
69020	London Road	North West
69041	Broomstairs	North West
69044	Bury Grounds	North West
70003	Wigan	North West
71001	Samlesbury Pgs	North West
71006	Henthorn Fms	North West
73006	Eel House Bridge	North West
73009	Sprint Mill	North West
73014	Jeffy Knotts	North West
73016	Bowston	North West
74002	Galesyke	North West
74005	Braystones	North West
74007	Crople How	North West
75003	Ouse Bridge	North West
75005	Portinscale	North West
75007	Threlkeld	North West

In addition, Adelphi Weir (69002) and Manchester Racecourse (69025) have been reviewed and combined, giving different flows in some years than presented in version 2.2.1.